

Composing Aktionsart of German prefix- and particle verbs

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Aktionsart composition

1 Introduction

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2 Overview

An open-ended list of typical data

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- 3 DM/DRT-architecture
syntactic assumptions
construction details

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 - Reconstructing 'figure'/ 'ground'-alternation as 'universal quantification'
 - semantic representation for 'ein Buch auslesen'

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 - semantic representation for 'ein Buch auslesen'
- 5 Conclusion and outlook
 - may be helpful

Introduction

- German prefix- and particle verbs and the P-elements they contain as constituents are often viewed as idiosyncratic in their formation and their components as highly ambiguous.
- Careful exploration of such verbs, however, reveals rules of word-formation and corresponding interpretation principles that build word meanings systematically from the meanings of their constituents
- Moreover, the effect of these principles is often that the constituents they combine disambiguate each other.
- Our general perspectives on these verbs also has impact on their Aktionsart: Aktionsart can be derived compositionally as one dimension to the verb's meaning

Introduction. State of the art view on Aktionsart in prefix- and particle verbs

- (Kratzer 2004): non-core-transitive accomplishment verbs enter syntactic structure as atelics e.g. *er schrieb und schrieb* vs. *er schrieb ein Buch*;
- (Kratzer 2004), (Filip and Rothstein 2005): prefixation often renders the verbal kernel telic, but with German verbs as a whole there is no strong correlation between telicity and prefixation.
In particular the same particle or prefix occurs in telic as well as in atelic verbs. (*Abkürzungen ausschreiben* (to write out abbreviations) vs. *sich ausdehnen* (to expand))
- according to Kratzer particle and prefix-verbs are idiosyncratic and non-compositional; the best one can do seems to be the following:
investigate the correlation between verbal stems and accusative DPs: 'Is there culmination with respect to the accusative DP'?

Introduction

- This talk: We defend the view that prefix- and particle verbs are formed compositionally
- To this end I will present a few of the analyses of particle verbs that have thus far resulted from this exploration.
- The analyses will involve construction algorithms that assign of logical forms (as proposed in DRT) to syntactic structures taken from Distributive Morphology (DM).
- The talk focuses on the contribution of 'P'-elements to a small sample of verbal kernels that contribute 'manner'.
- verbal kernels contributing 'manner' present the main challenge for the present proposal
- Not considered in this talk: 'result-verbs' cf. (Levin 2009) (bi-eventive verbs cf. (Roßdeutscher and Kamp 2010)).
- I only consider P-elements which admit spatial readings in this talk.

overview of the talk

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listing typical data

Akt.		Prepositional Phrase	$p:\emptyset$ or prtc	verbal kernel
			SUPPORT (y_e, z_e)	production
acc		den Text auf einen Zettel	auf	√schreib ('write')
		den Text auf einen Zettel	auf	√schreib
		* den Zettel	* auf	* √schreib
			SUPPORT (y_e, z_e)	change of position
acc		die Zettel an die Wand	an	√kleb ('glue')
acc		die Zettel an die Wand	an	√kleb ('glue')
		* die Wand	* an	* √kleb
			AT _{Topological} (y_r, z_r)	directed application
acc		die Farbe an die Wand		√streich ('brush')
		* die Farbe an die Wand	* an	* √streich
ach; ✓		die Wand (mit (*der) Farbe))	an	√streich

Akt		Prepositional Phrase	<i>p:∅</i> or <i>prtc</i>	verbal kernel
				force
acc		mir _{dat} die Kleider	an	√zieh ('pull ./ stretch / attract') (= dress)
(act)		(#) die Kleider an mich _{akk}		√zieh ('pull') (= pull towards)
ach; ✓		mich _{akk} (mit *(den) warmen Kleidern)	an	√zieh ('dress')
		* die Kleider an sich _{akk}	* an	* √zieh
act		das Seil an sich _{akk}		√zieh ('pull towards')
act		Touristen	an DIR	√zieh (attract)
act		das Seil zu sich	her an	√zieh ('pull towards')
		*einen Touristen * zu sich	(* her) an	* √zieh (attract)
acc		das Seil / die Bemse	an	√zieh ('pull tight')

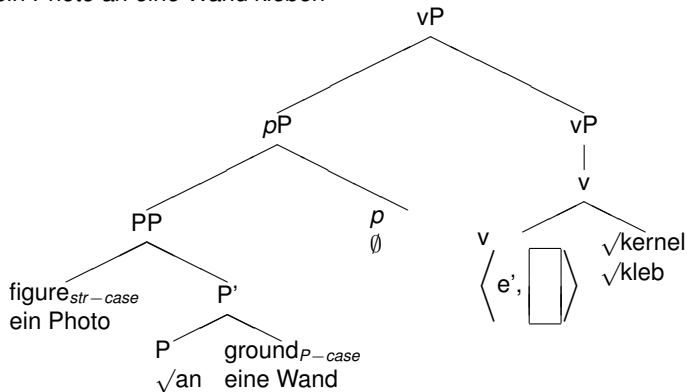
Akt		Prepositional Phrase	<i>p:Ø</i> or prtc	verbal kernel
		TOPOLOGICAL	PATH	change of location
acc		in das Stadion		√lauf (run)
acc		in das Stadion	ein 	√lauf
act		in dem _{dat} Stadion		√lauf (not into)
acc		der Wein aus dem Fass	aus 	√lauf
acc		der Wein aus dem Fass		√lauf
ach; ✓		das Fass (*von dem Wein)	aus	√lauf
		TOPOLOGICAL		consumption
acc		den Wein aus dem Glas		√trink (drink)
ach; ✓		das Glas	aus	√trink (drink)
ach; ✓		das Glas	auf	√trink (drink)
ach; ✓		das Buch	aus	√les (read)
ach; ✓		das Wort	aus	√schreib (write)

Akt		Prepositional Phrase	$p:\emptyset$ or prtc	verbal kernel
			DIR	dir. perceive-action
act		in das Album		√blick ('look')
act		in das Album	hin ein	√blick
act		eine Person	an	√blick (look)
act		auf eine Person		√blick
acc		an eine Person		√schreib ('communi- cate through writing')
acc		eine Person	an	√schreib ('comm')
act		auf einen Mann	zu	√lauf (running to- wards')
act		auf einen Mann	ein	√stech (stab)FORCE
act;pnt			zu	√stech

Akt	prefix	Prepositional Phrase	<i>p:Ø</i> or <i>prtc</i>	verbal kernel
ambig.		durch einen Wald	PATH ■	change of location √fahr (drive)
ambig.	durch	einen Wald		√fahr
acc		durch einen Wald	durch	fahren
acc		die Haare	durch	√kämm (comb)
		* den Tunnel	*durch	*√fahr
ambig.		um einen Baum		√fahr (drive around tree, avoid)
ambig.	um	einen Baum		√fahr (drive around tree, avoid)
acc		einen Baum	um	√fahr FORCE (drive down)
act		um sich _{acc}		√blick (different dir)
ach; ✓		sich _{acc}	um	√ blick (all dir)
acc	unter	einen Brief (mit dem Namen)		√schreib (write)

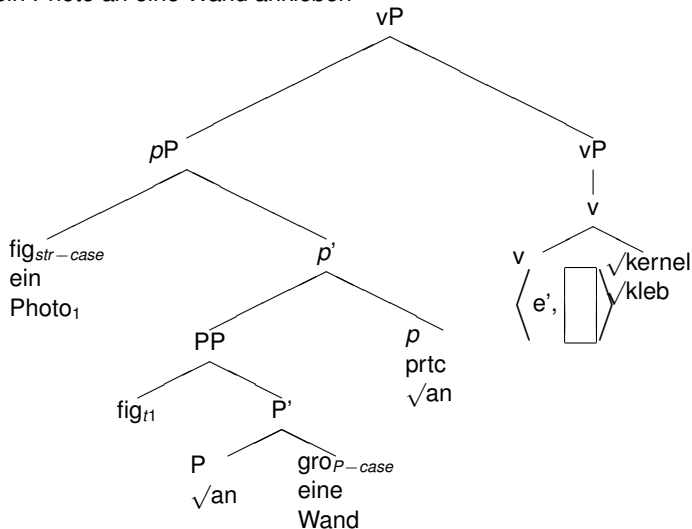
vP selects (generalised) pP

ein Photo an eine Wand kleben

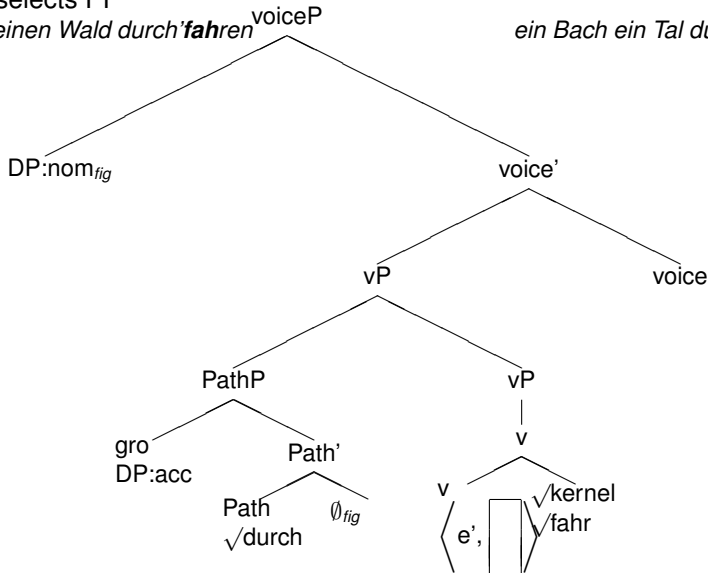


- **'split-P'-Hypothesis**, (Svenonius 2003), (Svenonius 2004), (Romanova 2006)

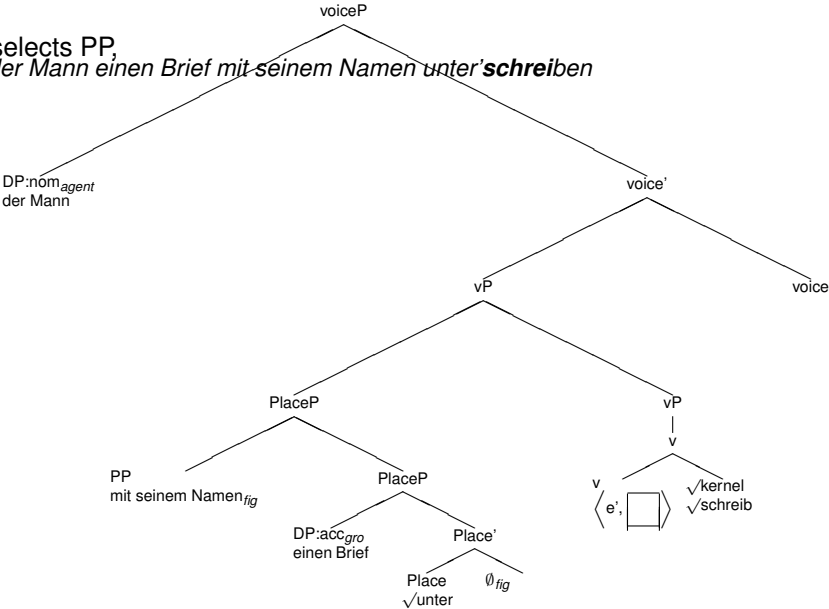
vP selects particle- *pP*, particle selects PP,
ein Photo an eine Wand ankleben



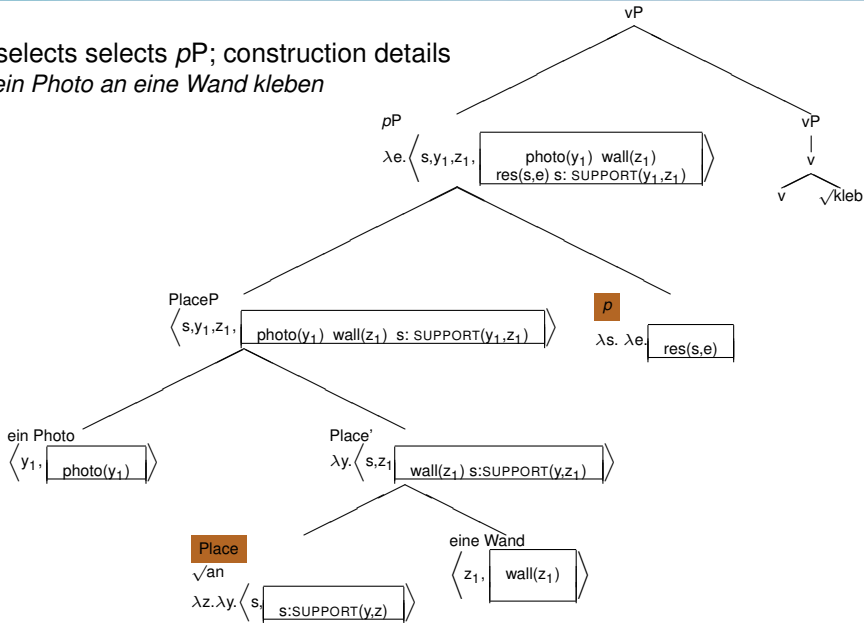
vP selects PP

einen Wald durch'fahren
ein Bach ein Tal durch'laufen


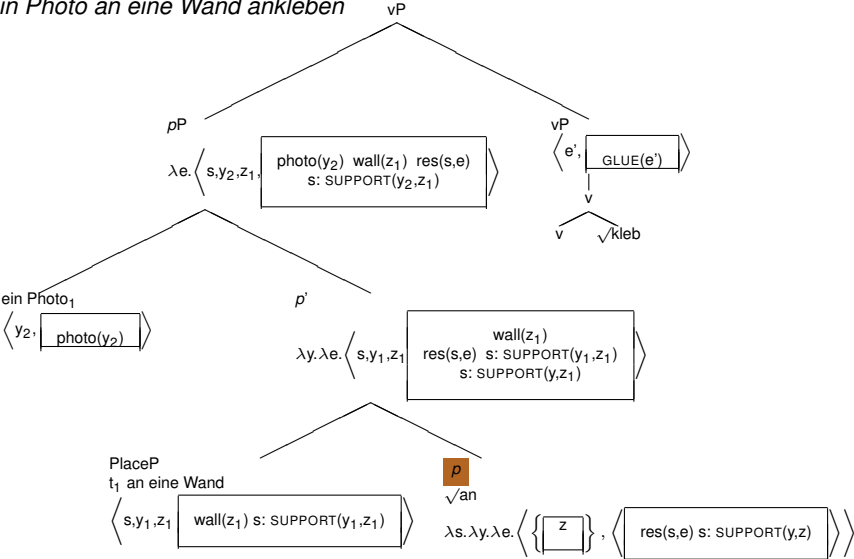
vP selects PP,
der Mann einen Brief mit seinem Namen unter'schreiben



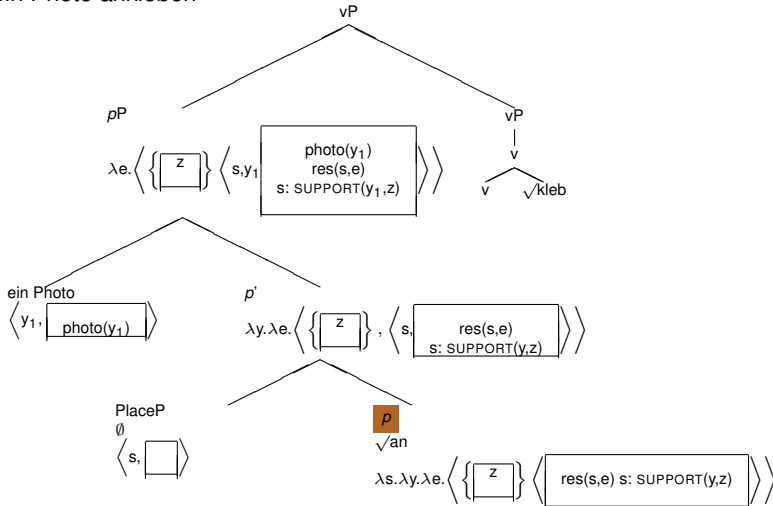
vP selects selects pP; construction details
ein Photo an eine Wand kleben



vP selects particle, particle selects PP
ein Photo an eine Wand ankleben

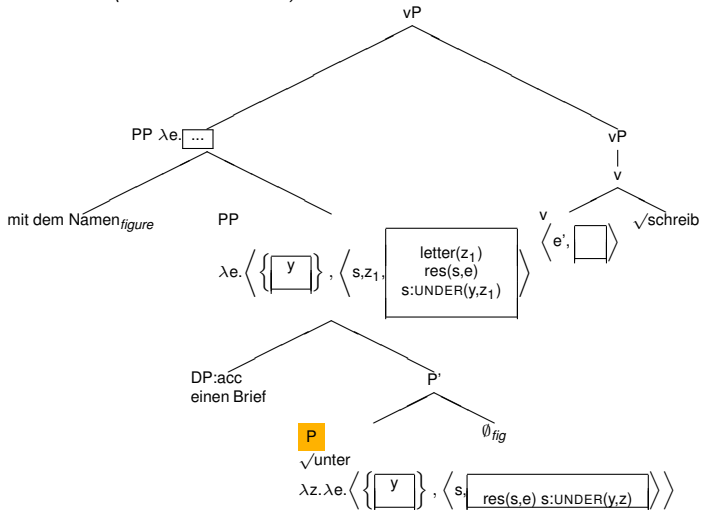


vP selects particle, particle selects PP
ein Photo anleben



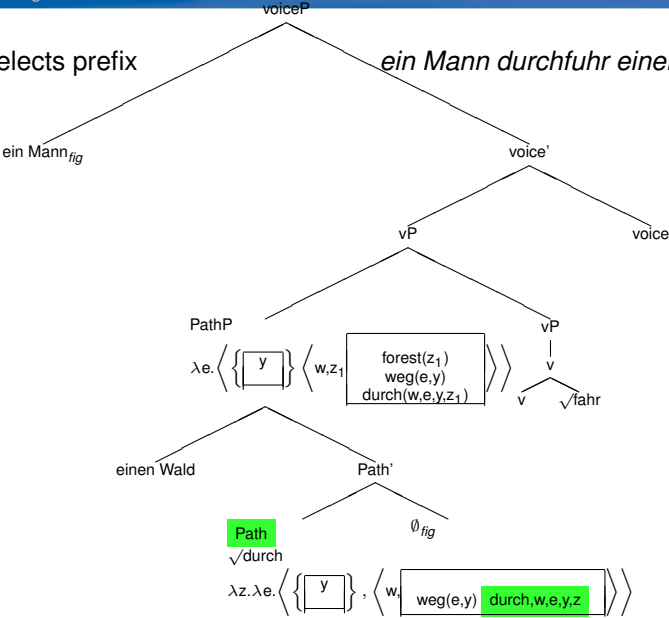
vP selects PP

einen Brief (mit dem Namen) unterschreiben



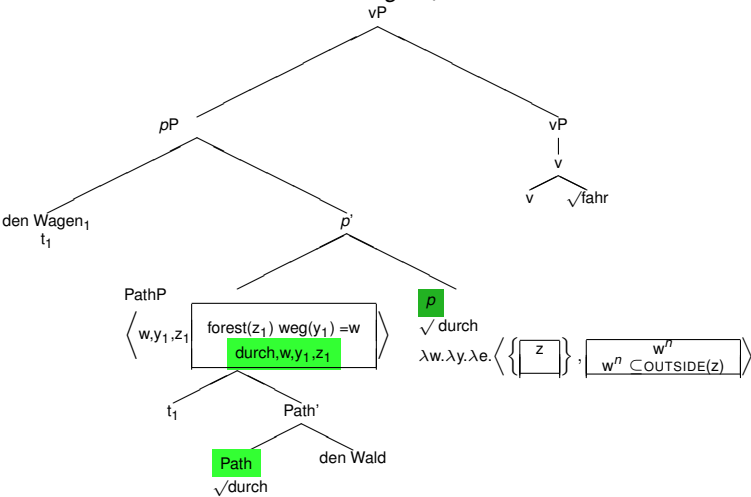
vP selects prefix

ein Mann durchfuhr einen Wald



vP, selects particle; particle selects PP
*den Wagen durch den Wald **durch**fahren* or

*agent_{t1} durch den Wald **durch**fahren*

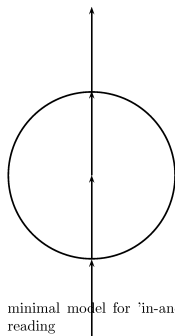


vP select particle, particle selects PP

- (1) ein Mann fuhr durch einen Wald
a man drove through a forest

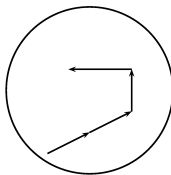
durchfuhr einen Wald

underspecified wrt. 'in-and-out' or 'interior'-reading



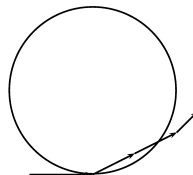
minimal model for 'in-and-out'-
reading

Composing Aktionsart

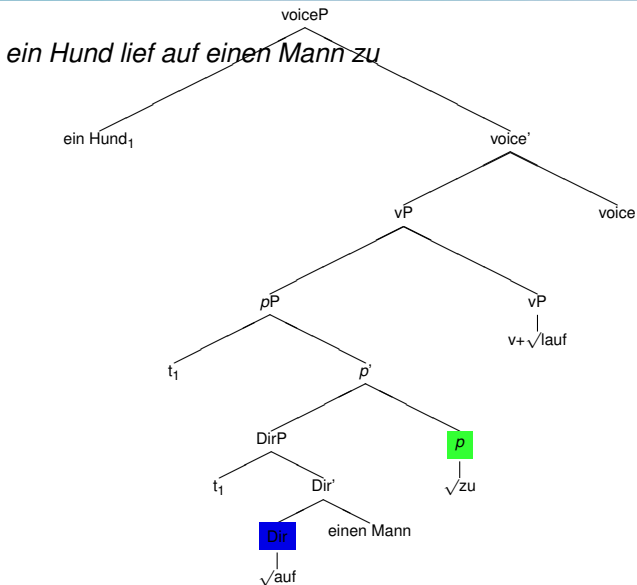


minimal model for 'in'-reading

Roßdeutscher



no model



vP



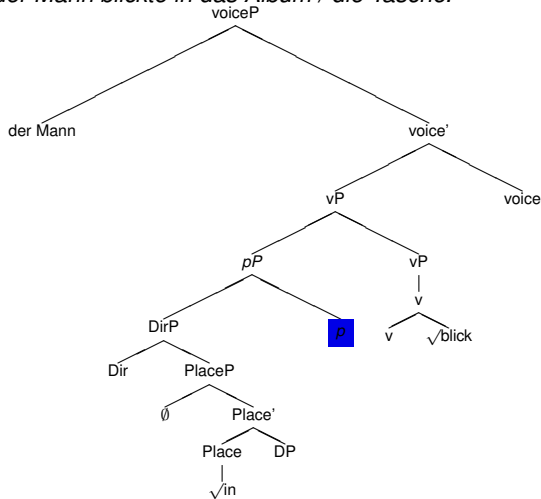
auf t_1 einen Mann

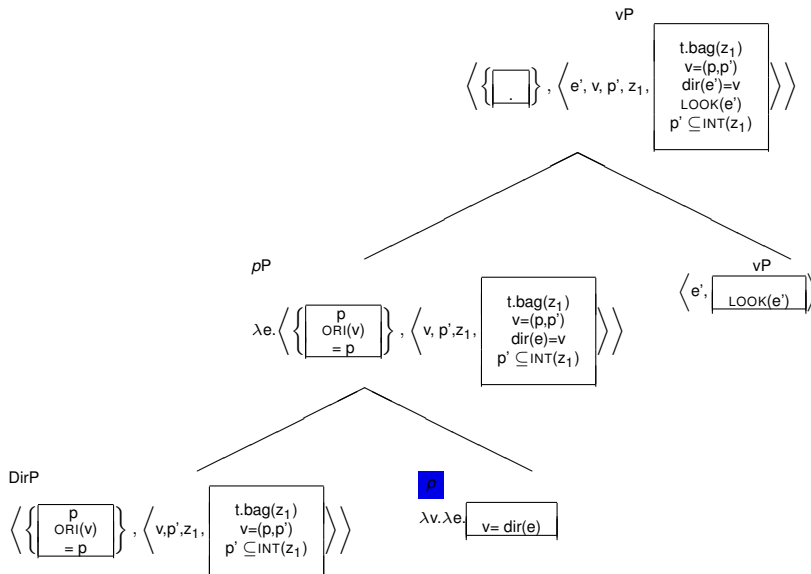
p

✓zu

vP select particle, particle selects PP

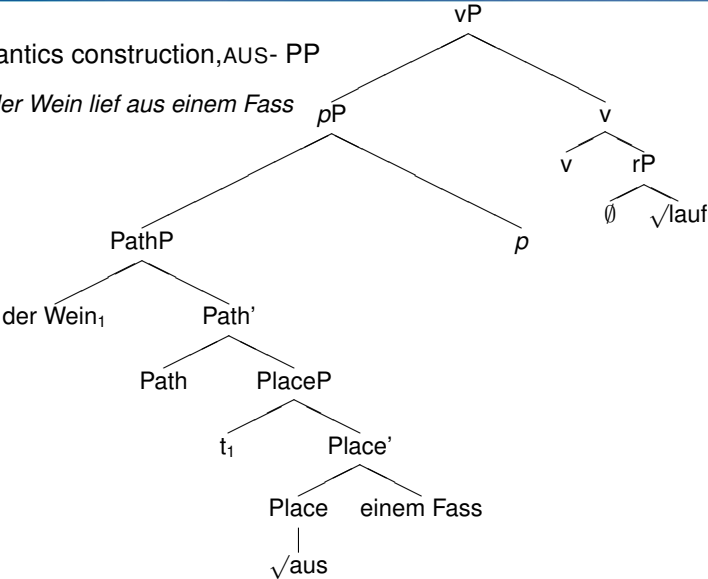
der Mann blickte in das Album / die Tasche.



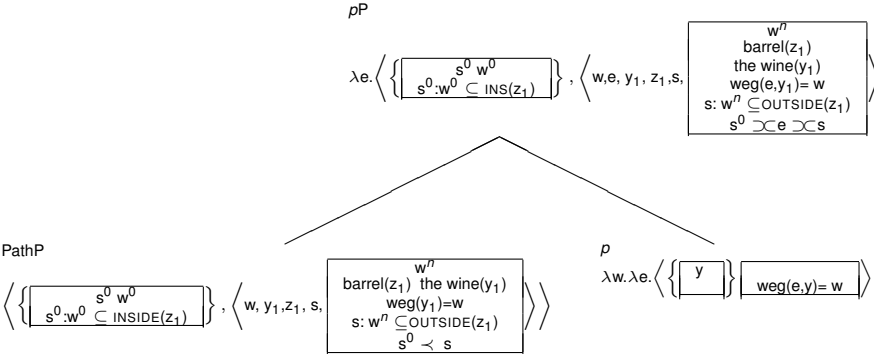


semantics construction, AUS- PP

der Wein lief aus einem Fass

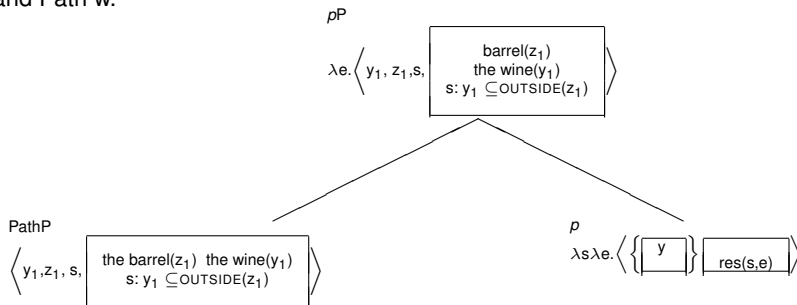


semantics construction for *der Wein aus einem Fass laufen*

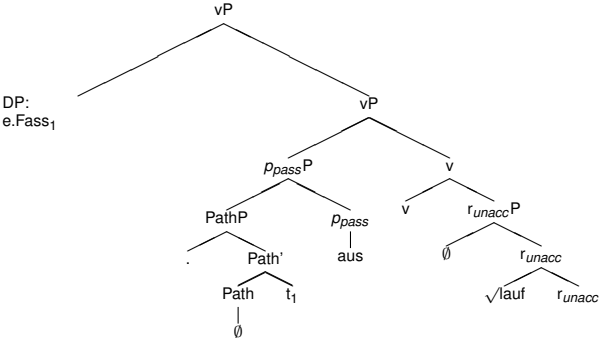


Semantics construction for *der Wein aus einem Fass laufen*

'simplification of the representation': we abstract away from the presupposition and Path w.

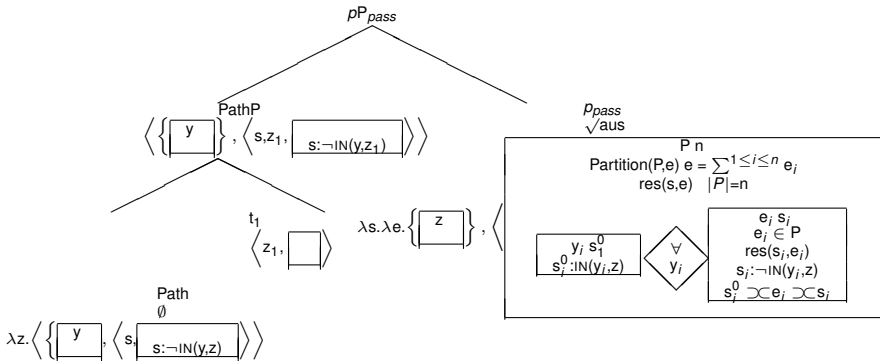


semantics construction for *ein Fass auslaufen*

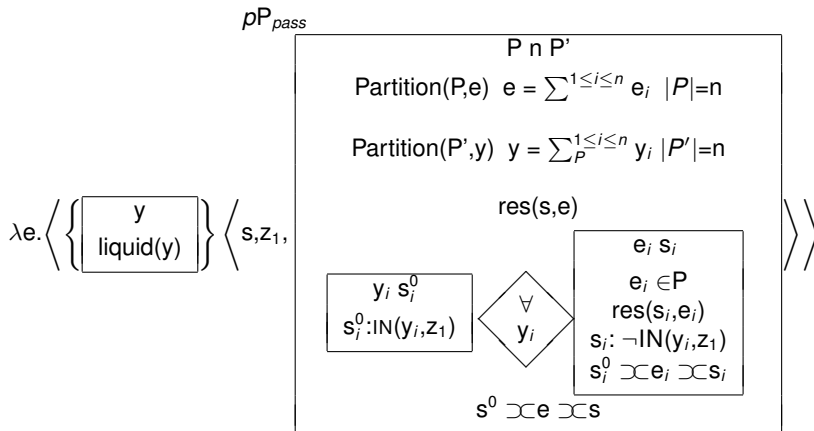


adopted from (Romanova 2006):111.

semantics construction for *ein Fass auslaufen*



semantics construction for *ein Fass auslaufen*



der Wein aus e. Fass laufen vs. ein Fass auslaufen

E: event structure

P: mereological part structure

e' e'' $E \rightleftharpoons P$

y' y''

$$e = e' \oplus_E e''$$

$$y = y' \oplus_P y''$$

der Wein

y is strictly incremenal theme

E: event structure

$\updownarrow \tau$: trace function

T: time structure

$$e' <_E e$$

$\updownarrow$

$$\tau(e') \prec_t \tau(e \setminus e')$$

$$\tau(e') \prec_t \tau(e'')$$

$$T \rightleftharpoons P$$

$$y' \prec_{t,P} y''$$

the (implicit) liquid

y is sequential theme

The difference that *aus* makes in *auslesen*

Scenario: Reading a dissertation with 5 chapters as follows:
chapter 3 << chapter 1 << chapter 2 << chapter 4 << chapter 5

- (2) a. Ich habe die Dissertation gelesen. (true)
- b. Ich habe die ganze Dissertation gelesen. (true) (the whole thesis)
- c. Ich habe die Dissertation ausgelesen. (not true)

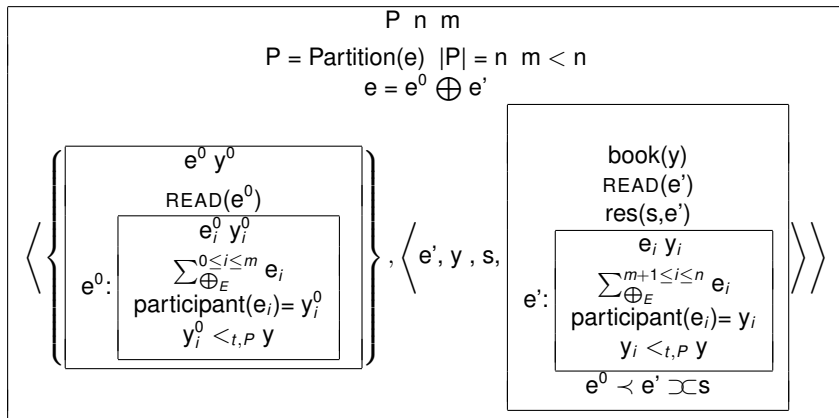
- (3) a. Sie hatten den Song rückwärts gespielt
 They had the song backwards played
 'they had the played the song backwards'
- b. # Sie hatten den Song rückwärts ausgespielt
 They had the song backwards [aus]played

- books and songs come with a predetermined temporal order of their parts, i.e. the order in which the parts participate in an action. That order must be respected in the *aus*-description. (If the theme doesn't come with such an order one will be accommodated.)

the semantic representation for *ein Buch auslesen*

P is a partition of e , i.e. a set non-overlapping $e_{i \leq n}$ that sum up to e .

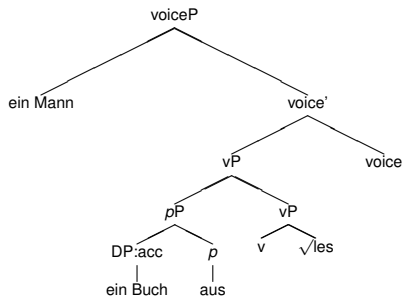
(4)



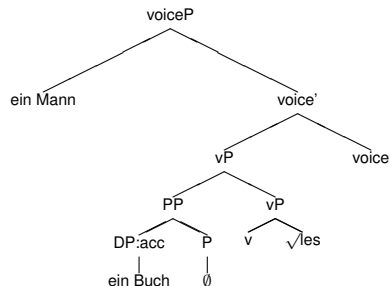
... a corresponding partition of y , i.e. a set of disjoint parts $y_{i \leq n}$ that sum up to y .

composition of *ein Buch lesen* and *ein Buch auslesen*

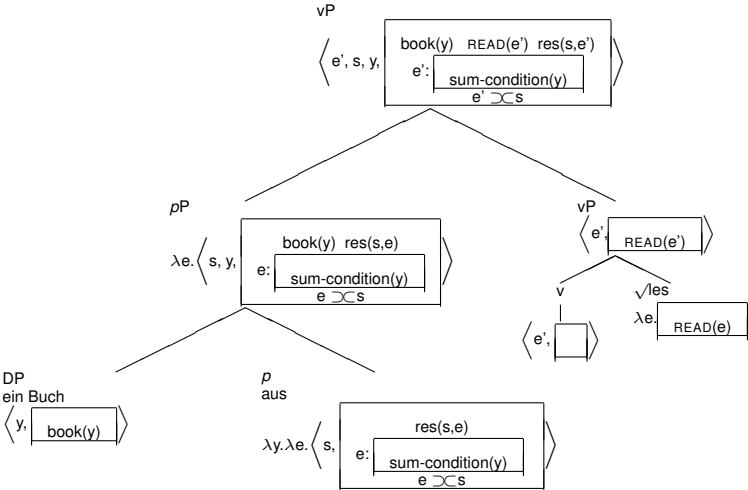
ein Mann ein Buch auslesen



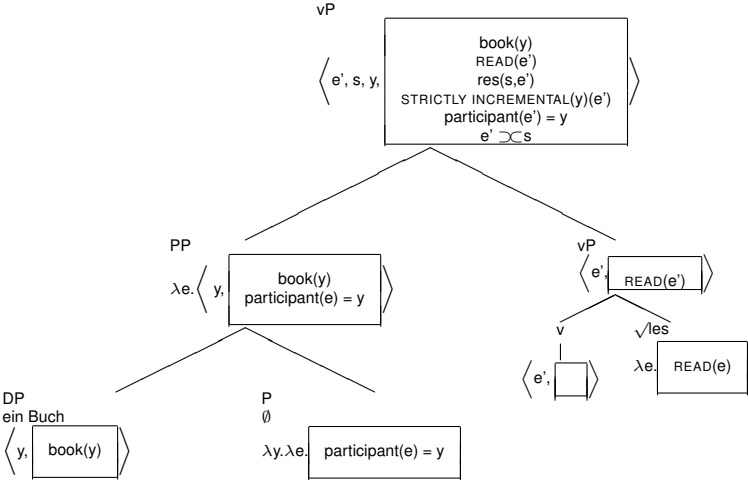
ein Mann ein Buch lesen



semantics construction for *ein Buch auslesen*



semantics construction for *ein Buch lesen*



Conclusion and outlook

- Often the verbal kernel imposes requirements on the 'ontology' of the particle and on prepositional phrases that the verbal head selects.
- Particle *ps* (and silent *ps*) answer these requirements.
- At the same time they pass these requirements down to the PPs they select;
- Exception: silent P's of (Marantz 2006) for objective case [$_{PP}$ [$_{P}$ ein Buch]] have no impact on culmination.
- Directional P-elements do not impose culmination.
- Prefixes that denote complex pathes are underspecified wrt. culmination. When these same P-elements function as particles, they do contribute culmination.
- We often observe particles with a non-spatial one-place-relational semantics that are apparently coerced from P-elements. But we know little about rules and restrictions underlying coercion.
- To which extend particles imposing universal quantification have spatial impact isn't always easy to tell.

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